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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,368	02/28/2006	Petrus Hendrikus De Been	2001-1425	4105

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EXAMINER	
JENNINGS, STEPHANIE M	

ART UNIT	PAPER NUMBER
4135	

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10/16/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/563,368	DE BEEN ET AL.	
	Examiner	Art Unit	
	STEPHANIE JENNINGS	4135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *16-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *16-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 January 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20060104*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: grammatical errors and lack of use of idiomatic English.

The disclosure is objected to because of the following informalities: reference number 10 is used to refer to both a "mandrel" and a "former." Additionally, “mandrel” and “former” are used interchangeably throughout the specification. Appropriate correction is required.

The disclosure is objected to because of the following informalities: reference numbers 2 and 3 are used for multiple parts. Appropriate correction is required.

The disclosure is objected to because of the following informalities: the sides (part 16) are labeled in figure 6, but not mentioned in the description of the drawing in the specification. Appropriate correction is required.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “10” has been used to designate both a former and a mandrel, reference character “2” has been used to designate the bent front edge, curved region, curved front edge and convex arched top surface, wall free end, and top wall, reference character “3” has been used to designate the concave arched panel, arched panel, bottom wall, free wall end and concave

arched bottom surface, reference characters "2" and "3" have both been used to designate the free end of the walls, and the associated part for label 5 in Figure 2 is unclear. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 16 is objected to because of the following informalities: shaped sheet (1') is referenced in the claim, but not present in the specifications or drawings. Appropriate correction is required.

Claim 23 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on another dependant claim. Additionally, claim 23 refers to claim 5, a cancelled claim. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.

Claims 16-30 are objected to because of the following informalities: multiple inconsistencies between labels and figures stated in claims versus labels and figures stated in specification and drawings. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claim 18, the phrase "optionally" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 21, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 23 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim as drafted is vague and fails to further describe or identify the claimed invention. It is unclear what the “body” in the claim language refers to.

Regarding claim 24, the phrase "and the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "and the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 16-20, 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke, US Patent No. 3,057,393 and Clarke, et. al. US Patent No. 3,045,327.

The examiner notes that the applicant has drafted claim 17 with the use of "or." The examiner is tasked with reading the claims broadly and by reading the disjunctive connector, only one of the limitations needs to be met to reject the claim.

The examiner notes that the applicant has drafted claims 18 and 19 with the use of "optionally." The examiner is tasked with reading the claims broadly and by reading the phrase "optionally", only the limitations of the claim prior to the use of "optionally" need to be met to reject the claim.

The examiner notes that the applicant has drafted claim 21 with the use of "or." The examiner is tasked with reading the claims broadly and by reading the disjunctive connector, only one of the limitations needs to be met to reject the claim.

The examiner notes that the applicant has drafted claim 30 with the use of "and/or." The examiner is tasked with reading the claims broadly and by reading the disjunctive connector, only one of the limitations needs to be met to reject the claim.

Examiner must give claims their broadest reasonable interpretation, MPEP §2111, "During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified, *In re Pratter*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969), *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997)." Also see *In re Zletz*, 13 USPQ 2d. 1320 (Fed. Cir. 1989).

Clarke (US Patent No. 3,057,393) teaches:

FIG-1

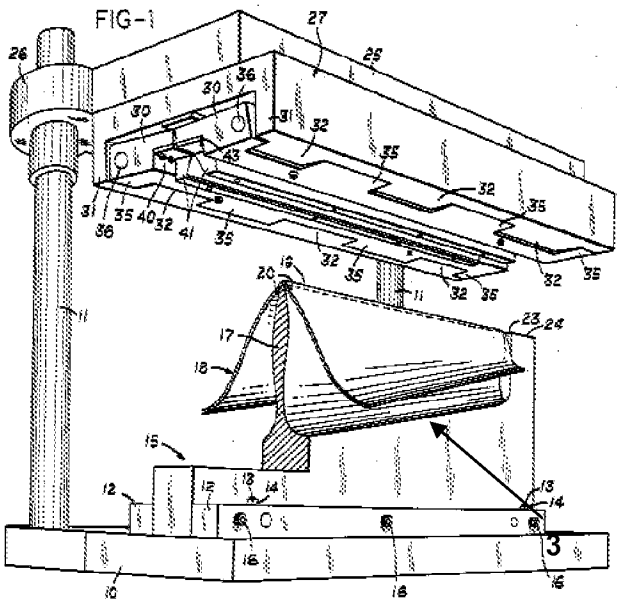


FIG-9

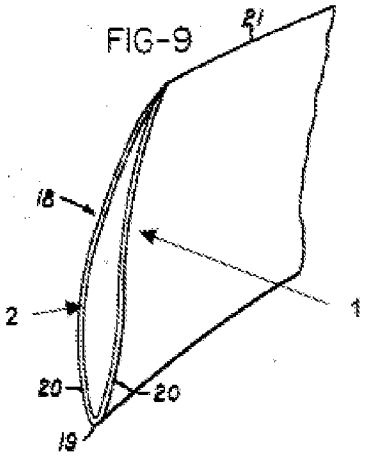


FIG-2

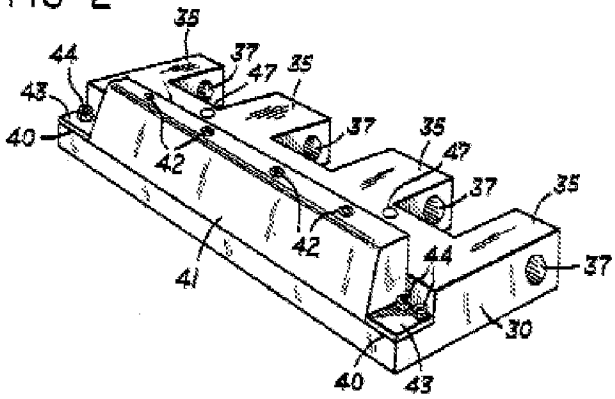


FIG-5

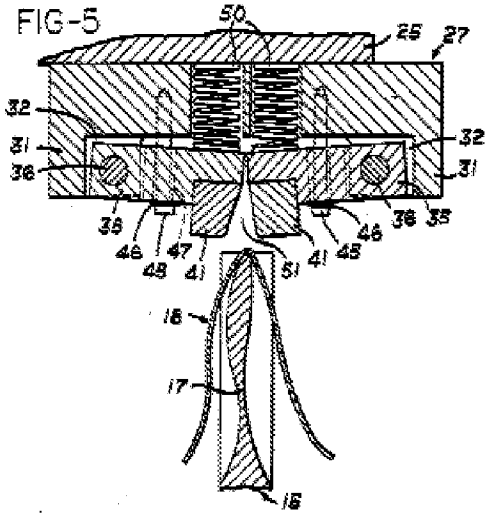
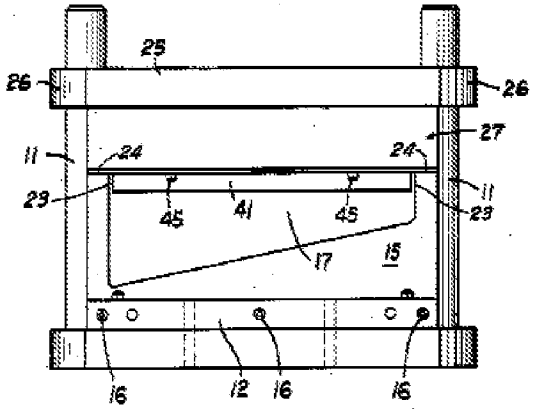


FIG-4



Limitations from claim 16, method for the production of a semi-finished product (18, figure 1 above) for a wing-shaped element (figure 9 above) having, in cross-section, a front edge (20, figure 9 above), a rear edge (21, figure 9 above) and an arched bottom wall (1—added by examiner, figure 9 above) and an arched top wall (2—added by examiner, figure 9) that extend some distance apart between the front edge (20) and the rear edge (21), comprising the following steps: providing a metal sheet (18), bending the sheet (18) with the formation of two panels (1, 2) as well as a curved region (2) which the panels (1, 2) adjoin, providing a former (15, 17), the exterior of which has the shape of the internal surface of the finished element (17), placing the former (15, 17) in the bent sheet (18) with the front edge of the former (15 and 17) positioned in the curved region (2), providing an edge press (figure 4 above) provided with a pressure member (figure 2), fixing the former (15, 17) to the pressure member (figure 2), removing the former (15, 17) with shaped sheet (18) from the edge press (figure 4), placing the shaped sheet (18) in a rubber press provided with a bottom block having a cavity (51) which has a shape that at least approximately corresponds to the external shape of one of the walls (1, 2) of the shaped sheet (18). (column 1, lines 8-20)

Limitations from claim 17, method according to claim 16, wherein the two panels (1, 2) are arched before, or at the same time as bending the sheet (18). (column 1, lines 21-23)

Limitations from claim 18, method according to claim 16, comprising bending the curved region (2). (column 1, lines 21-23)

Limitations from claim 19, method according to claim 16, comprising bending the curved region (2) (column 1, lines 21-23)

Limitations from claim 20, method according to claim 16, comprising constructing the rear edge using a section (21) that is fixed to the top wall (1) and the bottom wall (2) with the formation of a wing-shaped element (figure 9). (column 1, lines 66-71)

Limitations from claim 22, wing-shaped element (figure 9) produced in accordance with the method according to claim 16 made as a vane. (column 1, lines 8-9)

Limitations from claim 23, element (figure 9) according to claim 22 as produced by means of the method according to claim 5, wherein the section (18) has a body (3—added by examiner, figure 9) that extends between the panels (1, 2). (column 1, lines 8-9)

Limitations from claim 24, element (figure 9) according to claim 23, wherein the panels (1, 2) and the body (3—added by examiner, figure 9) are fixed to one another by rivets (not shown in figures), bonding and the like. (column 1, lines 10-13)

Limitations from claim 25, element (figure 9) according to claim 23, wherein the surfaces (1, 2) of the body (3) facing away from one another run obliquely with respect to one another in accordance with the run of the panels (1, 2). (figure 9)

Limitations from claim 26, element (figure 9) according to claim 22, wherein the panels (1, 2) are fixed directly to one another. (figure 9)

Clarke (US Patent No. 3,057,393) teaches a method of fabricating a blade blank via formation around a fitted mandrel, but does not specify a rubber cushion during the formation of the blade blank. However, Clarke, et. al. (US Patent No. 3,045,327) teaches this feature.

Clarke, et. al. (US Patent No. 3,045,327) teaches:

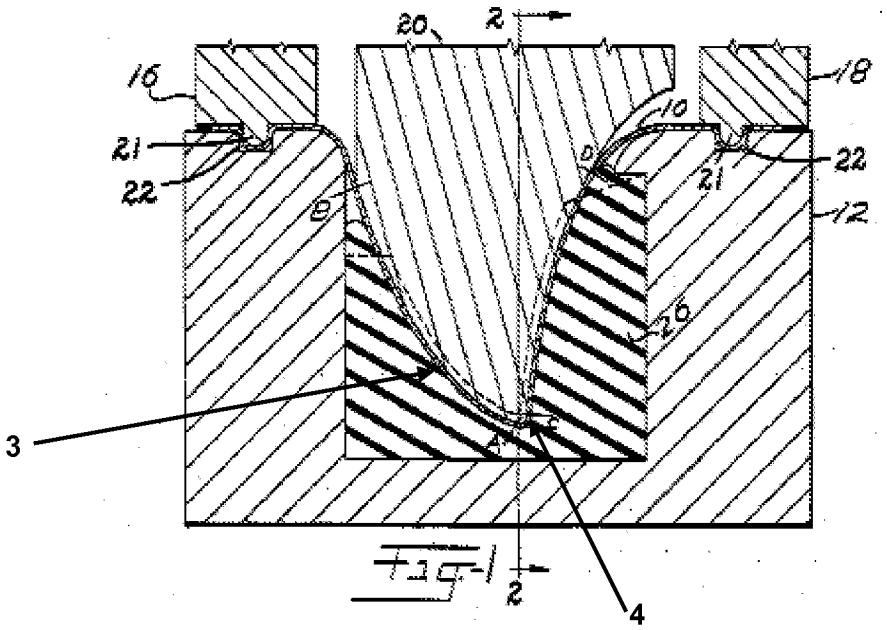


Fig. 1

Limitations from Claim 16, Method for the production of a semi-finished product (10, figure 1 above) for a wing-shaped element (not shown in figure), placing the former (20) in the bent sheet (10) with the front edge of the former (4—added by examiner) positioned in the curved region (2), providing an edge press (not shown in figure) provided with a rubber cushion (26) located opposite, fixing the former (10) towards the rubber cushion (26) with the bent sheet (10) enclosed between them and deforming said sheet between the former (20) and the rubber cushion (26), removing the former (10) with shaped sheet (10) from the edge press (5), placing the shaped sheet (10) in a rubber press provided with a bottom block having a cavity (3—added by examiner) which has a shape that at least approximately corresponds to the external shape of one of the walls of the shaped sheet, pressing the shaped sheet (10) with former (10) between the bottom block (12) and a rubber mat (26), removing the semi-finished product (10) from the rubber press (column 1, line 39-column 2, line 9).

It would have been obvious at the time of invention for one of ordinary skill in the art to combine Clarke's (US Patent No. 3,057,393) invention with Clarke's (US Patent No. 3,045,327) invention because forming the wing-shaped element with the aid of a rubber cushion allows for a greater amount of pressure on the semi-finished product during forming and less damage to the semi-finished product when pressure is applied.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke, US Patent No. 3,057,393 and Clarke, et. al. US Patent No. 3,045,327 as applied to claims 16-20, 22-25 above, and further in view of Naaktgeboren, et. al. US Publication No. 2002/0062675 A1.

Neither Clarke (US Patent No. 3,057,393) nor Clarke, et. al. (US Patent No. 3,045,327) teaches a heat-treatment step in the formation of a wing-shaped element. Naaktgeboren does teach this feature.

Naaktgeboren teaches limitations from claim 21, method according to claim 16, including a heat treatment step, such as stress-free annealing of the semi-finished product (page 2, ¶ 28).

It would have been obvious at the time of invention for one of ordinary skill in the art to combine Naaktgeboren's invention with Clarke's (US Patent No. 3,057,393) and Clarke's (US Patent No. 3,045,327) inventions because it is well-documented that stress-free annealing provides increased ductility, relief of internal stresses, and refinement of structure, and improvement of cold working properties.

Claims 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke, US Patent No. 3,057,393 and Clarke, et. al. US Patent No. 3,045,327 as applied to claims 16-20, 22-25 above, and further in view of Griffith, et. al. US Patent No. 4,531,270.

Clarke (US Patent No. 3,057,393) teaches a method of fabricating a blade blank via formation around a fitted mandrel, but does not specify thickness ranges or a type of sheet material. Neither Clarke (US Patent No. 3,057,393) nor Clarke, et. al. (US Patent No. 3,045,327) specifies this. Griffith does teach these features.

Griffith teaches:

Limitations from claim 27, element according to claim 22, comprising a sheet with a thickness in the range of 0.8-2.0 mm. (column 5, lines 24-27)

Limitations from claim 28, element according to claim 27, comprising a sheet with a thickness in the range of 1.4-1.6 mm. (column 5, line 33)

Limitations from claim 29, element according to claim 27, comprising a sheet with a thickness in the region of 1.6 mm. (column 5, line 33)

Limitations from claim 30, element according to claim 22, comprising a sheet material consisting of alloys thereof. (column 5, lines 11-14)

It would have been obvious at the time of invention for one of ordinary skill in the art to combine Griffith's invention with Clarke's (US Patent No. 3,057,393) and Clarke's (US Patent No. 3,045,327) inventions because it is known in the art to manufacture alloys out of lightweight alloys. Additionally, the 0.2 mm-increased thickness is an obvious design modification of Griffith's invention, since Griffith’s invention is capable of function at different thicknesses.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHANIE JENNINGS whose telephone number is (571)270-7392. The examiner can normally be reached on M-F, 7:30 am-5 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William M. Brewster can be reached on (571)272-1854. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. J./
Examiner, Art Unit 4135
October 9, 2008

/William M. Brewster/
Supervisory Patent Examiner, Art Unit 4135